GEOGRAPHIC SCHOOL BULLETINS

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PAINTING BY ROBERT W. LINDNEUX © UNIVERSITY OF OKLAHOMA

They're off! Whips crack and horses plunge as thousands of land-hungry settlers swarm into Oklahoma in 1889

► For Oklahoma, Life Begins at 50

► Gibraltar: The Rock That Was Once in Africa

► Pennsylvania's Hawk Mountain Sanctuary

► Teacher in a One-room School

► King Saud's Arabia

Next Week: **The pulse of progress in the Belgian Congo**

Sooner Facts and Figures

- Part of the Louisiana Purchase of 1803, Oklahoma became known as Indian Territory.
- Opened to settlers in 1889, it now has a population of 2,237,000. It ranks 25th in population in the United States.
- Area, 69,919 square miles. Oklahoma ranks 17th in size among the United States. About one quarter of the State is forested. Nearly two-thirds is devoted to pasture and crops.
- Present industries—oil tools, glass, cotton products, meat packing, lumber.
- First producing oil well in Oklahoma was drilled in 1889.
- Oklahoma's State tree is the redbud; its State flower is the mistletoe and its State bird the scissor-tailed flycatcher.
- State motto: Labor Omnia Vincit (labor conquers all things).

OKLAHOMA CITY CHAMBER OF COMMERCE

of cowpokes add music to the Oklahoma story. Vast grazing lands beckoned the trampling herds from Texas until the homesteaders came in 1889. Now, with pasturage still bountiful, Oklahoma remains a leading cattle-producing State. Its stock flourishes about the southeastern mountains, near the Arkansas border, and on the high western plains.

The Sooner State tops all others in production of zinc and asphalt, and is second in output of magnesium salts. The State ranks fourth in annual petroleum production. Tulsa, the second-largest city, is tagged "the oil capital of the world." Its skyscrapers hum with the office work of more than 300 oil companies. Strange to reflect that this glittering place was founded by Creek Indians before the Civil War and long remained a country village.

Oklahoma City, the capital, set in the bull's-eye center of the State, began growing virtually from the bugle scream that started the 1889 land rush. Its gleaming buildings, left, dramatize Oklahoma's progress in so few years. And where in the world is there another capitol building with oil being produced from beneath it? In the 1930's, oil men, drilling 400 feet from the building, curved their drill pipe to hit oil far below the foundations.

Huge wheat elevators and flour mills tower over the roofs of Enid, serving the western wheat lands. Yet Enid virtually arose from nothing when the Cherokee Strip opened in late 1893.

Through all Oklahoma's building and booming, education kept pace. Learning flowers today in 2,000 school districts. Oklahoma University, at Nor-

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☆ ☆ ☆ *Ahead: Another Fabulous Fifty Years*

ON November 16th Oklahoma, the 46th State in the Union, turns 50. That's a tender age compared with some eastern sister States. But for every candle on her cake, Oklahoma has progressed phenomenally.

Like Texas, California, and Lousiana, she carries great wealth in oil. A million of her hogs grunt annually to market. Her cattle fatten in thick pastures. Her wheat, cotton, potatoes, peanuts, corn, and fruits bring money to farmers' banks. Her prairie stillness is shattered by growling machinery, disking fields in the new way (above) so stubble will hold rain and snow. Nearly 2,500,000 Oklahomans know their State—fair, fat, and fifty—is doing fine. And a few actually remember how it all began, in a simple land hunger.

Homesteaders marshaled in thousands on the prairie that April 22, 1889. Horses stomped and whinnied. Children looked big-eyed from under wagon canvas tops; their parents' eyes were narrowed on the horizon. Ears were cocked, listening for the bugle blast that meant go; race, all of you; stake out your homestead, and devil take the hindmost.

Then the bugle screamed. Dust rose, choking off shouts and curses as the land rush was on (cover).

They found homesites in "unassigned lands" the government had acquired from Indians. Some had slunk in ahead of the bugle to stake off choice claims. They drew anger and a nickname—"Sooners." But time softened its meaning. Oklahomans now refer as proudly to their Sooner State as to their University football teams.

From such land rushes grew a State of 69,919 square miles, shaped like an upturned saucepan. Its nearly treeless Panhandle, about 30 miles wide and 170 miles long, knifes between the borders of Kansas, Colorado, and Texas, to touch New Mexico. It was plowed deep for wheat raising and developed disastrous dust bowls. But replantings of grass now hold the soil.

Lowing of Shorthorn, Hereford, and Aberdeen Angus and yipping cries

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GIBRALTAR: 'Displaced' Mountain

EVERY history and geography student knows the great headland below, for the Rock of Gibraltar intrigues photographers as well as military strategists. Bulking 1,400 feet above the Mediterranean, it forms a spectacular backdrop for fishing vessels as well as an obvious fortress to guard the sea.

Geographers see another meaning to the old gray landmark. Separated from Africa by the Strait of Gibraltar, some 14 miles wide at this point, the Rock of Gibraltar is actually one of Morocco's Atlas Mountains—cut off from home, as it were. There is an old saying, "Africa begins at the Pyrenees," for south of that Spanish-French range, the Iberian Peninsula mirrors the North African pattern of oasis and desert, windswept plateau and dry, rugged hills.

Long ago an isthmus connected Gibraltar to Jebel Musa—the similar, but taller headland on the Morocco coast. Then either some massive upheaval or gradual sinking of land divided the two peaks. Ancients blamed the cataclysm on Hercules and named the two headlands the Pillars of Hercules.

Moors invaded Spain across the strait and seized Gibraltar in 711. Spain claimed it in 1502, but lost it to Britain in 1704.

A little more than two square miles in area, "The Rock" balances the town of Gibraltar on its western and southern flanks. Some 24,000 people—British servicemen and their families and local inhabitants mostly of Italian and Spanish extraction—man the intricate defenses, shop in the town's English stores and Indian bazaars, and guide Mediterranean cruise tourists through its winding streets.

Tension between soldiers and townsfolk does not exist in this heavily garrisoned Crown Colony. Gibraltar's children go to British-style schools, see American movies, mostly attend Roman Catholic churches. It's true that young men often battle the British—but on the soccer field only.—E.P.

STUART E. JONES, NATIONAL GEOGRAPHIC STAFF

BOB MC CORMACK

INDIAN ART, on display in Tulsa, is judged by Pablita Velarde, prize-winning Indian artist

man, and the Oklahoma Agricultural and Mechanical College, at Stillwater, are the largest of the State's institutions of higher learning.

Oklahomans are eagerly watching the current westward shift of the center of United States population. The State lies near the geographical heart of the nation, in a fast-growing region where incomes are relatively high. To supply this seam-bursting market area, Oklahoma hopes to lure more industries within its borders.

Thus the State that has prospered so much in so short a time sees a golden future still beckoning. The early settlers found a wealth of black prairie soil. Then oil wells sprouted in cornfields. Now people look forward to the hum of modern manufacturing plants.

Scratch Oklahoma, and you find Indians. For a century before statehood, the Choctaws, Creeks, Cherokees, Chickasaws, and Seminoles—the Five Civilized Tribes—conducted separate governments in what is now eastern Oklahoma. Nationlike, they maintained diplomatic relations with the United States. They have left their stamp on Oklahoma history and thinking. Indian blood flows in 110,000 Sooners. Will Rogers, beloved humorist, was proud of his Cherokee strain. Indian and white now help preserve the red man's culture at Bacone College, and elsewhere. Summer powwows renew old skills in tribal games. And what competitor could ever forget Jim Thorpe (1888-1953)? During the 1912 Olympic Games, the King of Sweden called him "the greatest athlete in the world."

All Oklahoma appreciates these true Sooners, the State's first families, who endowed their land with Indian culture (picture, above) and a name—*oklà*, meaning people, and *homa*, meaning red.—S.H.

National Geographic References: ***Map***—South Central United States (paper, 75¢; fabric, $1.50). ***Magazine***—January 1952, "America's 'Meat on the Hoof'" ($1.00); March 1941, "So Oklahoma Grew Up" (out of print). ***School Bulletins***—May 11, 1953, "In the Sooner State, It's 'Oklahoma, OK'" (10¢).

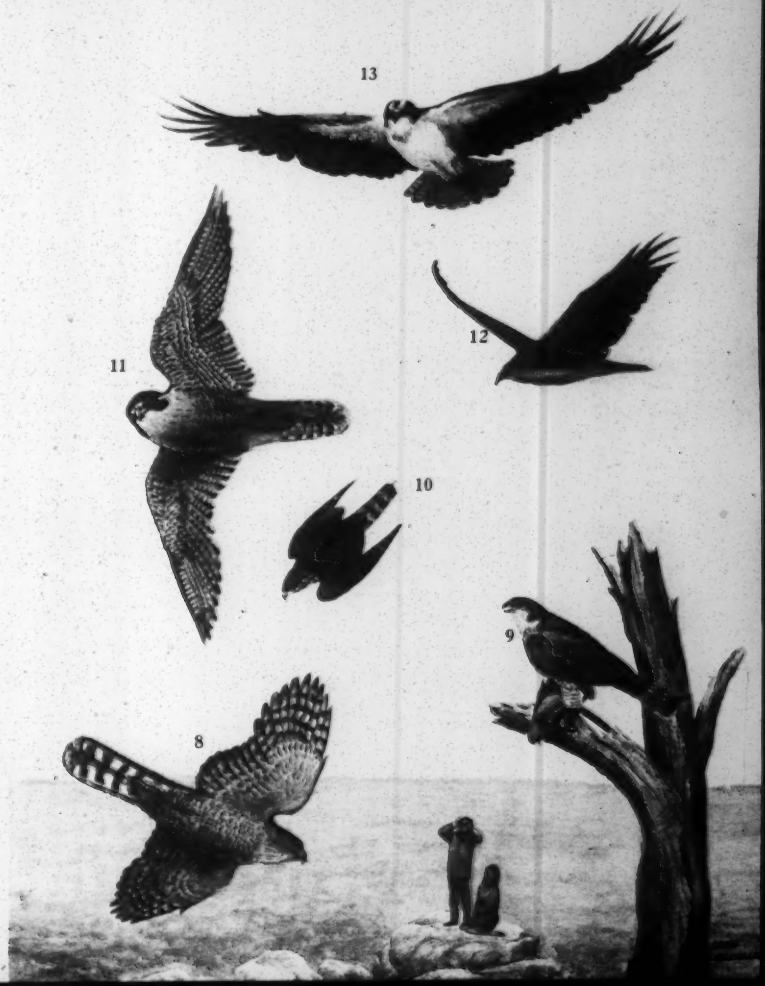
ıial Show at Hawk Mountain

aphs by Bates Littlehales, National Geographic Photographer

But the real show starts at trail's end. From "The Lookout," autumn's brilliance spreads over the valley to the distant Poconos. And etched against the clear sky, hawks, vultures, kestrels stream past. Their heads cock slightly as they soar over the peak on a thermal current. Then sharp eyes spot a cluster of humans. Strong wings beat, thrusting them on. Human viewers train batteries of binoculars and scribble notes. Then someone points. Eyes pivot to a speck in the sky. Winging down, riding the wind majestically as if he rules it, comes a golden eagle.

Conservationists take special pleasure in Hawk Mountain's popularity. Hawk populations have dwindled everywhere, destroyed relentlessly because of supposedly serious damage to poultry and game. Actually, hawks play vital roles in keeping nature in balance. They eat huge quantities of small rodents and insects that cause agricultural damage soaring to astronomical figures. Cooper's hawk and goshawk are among the few really destructive hawks.

When the sanctuary began in 1934, its founders hoped to promote protection for hawks. Few spoken pleas could be more eloquent than the show at Hawk Mountain Sanctuary, where people aim lenses instead of shotguns.—J.A.



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Score Card of the Players

A spotter's eye has to be quick to identify all the birds winging over Hawk Mountain. Those shown here and at far right are only a few.

1. red-tailed hawk, 2. broad-winged hawk, 3. red-shouldered hawk, 4. golden eagle, 5. bald eagle, 6. sparrow hawk, 7. marsh hawk, 8. Cooper's hawk, 9. sharp-shinned hawk, 10. pigeon hawk, 11. duck hawk, 12. turkey vulture, 13. osprey.

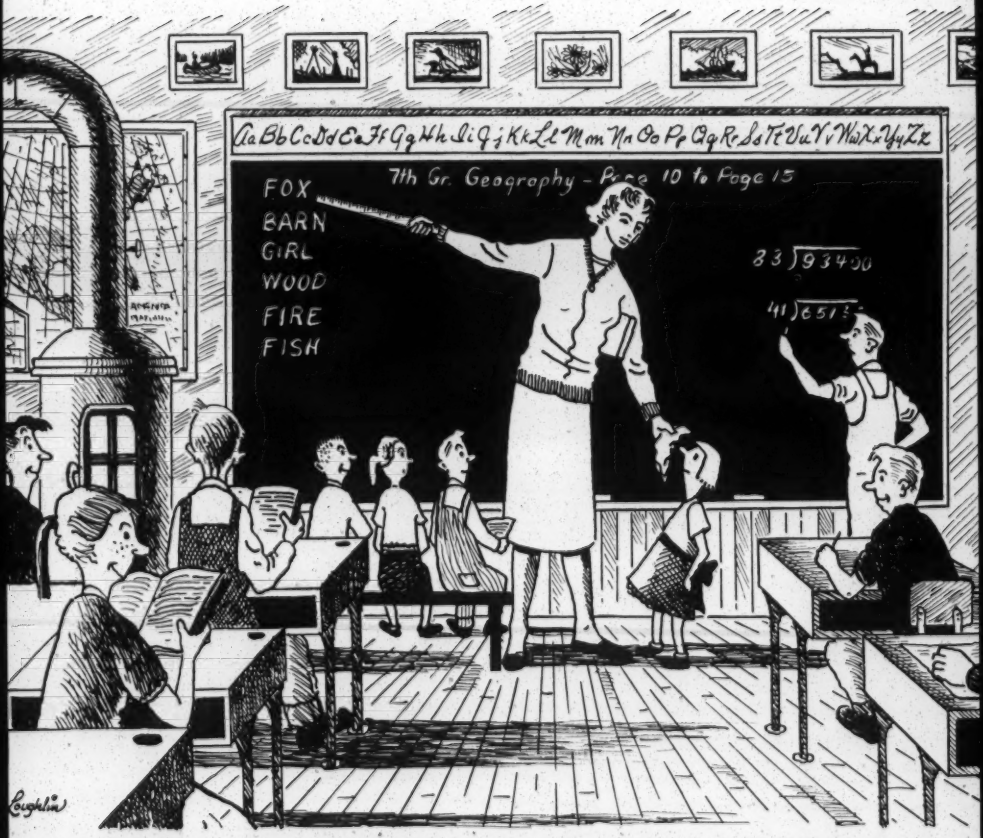
Autumn's Aerio

Paintings and Photographs

They come in October and early November—sharp-shinned hawks, red-shouldered hawks, ospreys, all the birds of prey shown on these pages. Wheeling south along their migratory corridor, they pass, each fall, a Pennsylvania mountaintop. And among the tumbled rocks of this summit, Hawk Mountain, crouch throngs of nature lovers watching the aerial parade.

Hawk Mountain Sanctuary is the only spot in the world, aside from zoos, set aside to safeguard birds of prey. Little more than two square miles in area, it handles as many as 12,000 visitors a year who puff up a wooded trail to watch the hawks go by. Naturalists, conservationists, students, scouts, and just plain bird watchers are welcomed by Hawk Mountain's curator, Maurice Broun, shown at left giving first aid to one of his winged transients.

Even before reaching the mountaintop, nature lovers find rewards for their climb. Birch, oak, hemlock, pine, rhododendron, and other trees and plants line the trail. A rare pileated woodpecker may hammer a near-by tree. Flights of migrating warblers rattle the leaves as they come in to rest.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7th Gr. Geography - Page 10 to Page 15
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He may read with the second grade, do arithmetic with the fourth, and be the best art student in the school.

Eighth grade students are just as proud as Ann, Rosemary, and Jimmy when these fourth graders finally master multiplication tables. Younger children wait patiently while I explain a difficult problem to a higher grade. Some of these little ones pay serious attention to higher classes. It is not uncommon for young children to be far advanced, especially in arithmetic.

Likewise seventh grade Helen and Betty enjoy singing "The Little Shoemaker" with a "rat-a-tat-tat" as thoroughly as do the small ones. Bill and Perry, who will be sophisticated high school freshmen next year, bend over enthusiastically, acting out the words of the little teapot, "tip me over, pour me out."

Because of their rural Ozark background the children are well informed on wildlife and such outdoor activities as hunting, fishing, and forestry. The fifth- and sixth-grade study of American Indians becomes very real to Kenneth and Betty. They often find Indian relics while plowing their own fields.

On the other hand, second graders make little sense of lessons on municipal fire departments, apartment living, subways, and streetcars. These city institutions and services are foreign to them. So we study about sheriffs and State patrolmen instead of policemen; about bookmobiles instead of city libraries.

I try to teach everything from drop the handkerchief to diagramming sentences. I coach the softball team, build the fires, and sweep the floor. When the little ones need mothering, I am handy. Each day brings its own excitement, stimulation, and reward. And outmoded as they may be, one-room country schools still place a lot of students on high school honor rolls.

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Three-ring Circus in One-room School

But Rural Graduates Earn High School Honors

By Ellen Gray Massey

EARLY morning sunlight slants across the Ozark farmland and strikes the schoolyard. Pausing to rest my arms from pumping well water, I gaze across meadows, fence rows, and timberland and note the quickening life of neighboring farms. Across a hollow, men are painting a silo. Behind me a tractor eats its way across a stubbly field. By the edge of the timber a farmer drives his herd of Jersey cows out of the milk lot.

With a shout, Kathryn and Leota swirl into the schoolyard on their bicycles, their tires still wet from fording Mars Creek. Behind them, the yellow school bus grinds over the hill from the Little's place. Quickly I fill the bucket. By the time I've emptied it into the drinking fountain cooler and started out after the day's supply of stovewood, the rest of Eureka School's 16 pupils have arrived. With much willing help, I carry in the wood. The flag flutters up.

In this age of giant, streamlined schools, newly built to accommodate hundreds of students, it is easy to forget that some 40,000 tiny country schools, each with only one teacher, still dot the United States. For American Education Week (November 10-16) the Geographic School Bulletins salute the teacher who juggles eight grades in a single classroom, who acts as second mother to her pupils, as custodian for her weather-beaten schoolhouse.

In this story, one such teacher describes her exhausting, rewarding day's work.

Eureka School is a one-room elementary school in the northeast corner of Webster County in south-central Missouri. Its 16 boys and girls range from five to 14 years old and are distributed through the first eight grades. They all come from eight different farm homes within two miles of the school building (as the crow flies). Two families have four children and one has three attending the school.

"Glenn and Perry didn't make it today," Bill announces as we settle down to work. "I'll have to miss a day or two next week." By the time they reach fifth grade, boys are skillful tractor operators, often needed at home. Missing school for farm work is excused.

It takes a combination of Horace Mann and Houdini to teach eight grades at once. I listen to little David read in his preprimer. Meanwhile the other grades study their reading lessons. One of the upper-grade students explains hard words to the second grade. When his recitation is over, David studies his assignment for the next day while I take on the second grade. I have learned to listen to one class and give needed assistance to another without interrupting work.

Sometimes this three-ringed circus act misfires. During science period, Carl, a second grader, is reading aloud. "In autumn the leaves turn from green to . . ."

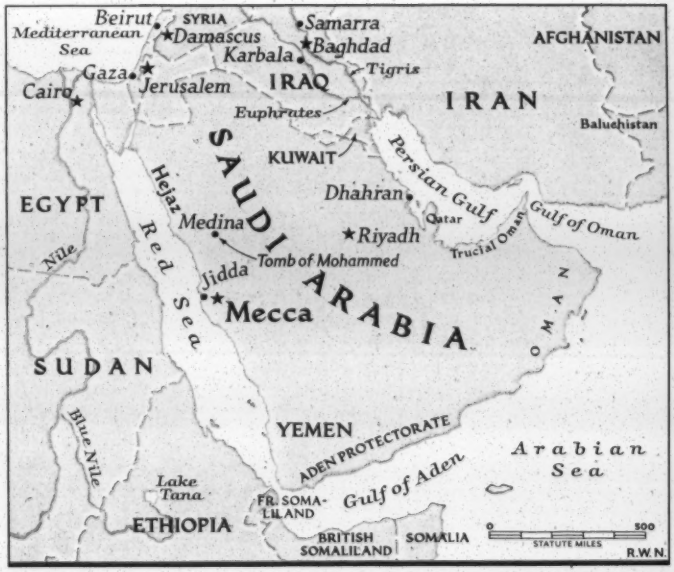
Just then Loretta points out an unfamiliar word in a sixth grade lesson.

"Protoplasm," I tell Loretta.

". . . from green to protoplasm and red and orange," Carl reads on.

Occasionally one of the older students will be ahead in his classwork and will take charge of the younger ones, freeing me to give more undivided attention to the problems of the fractions or percentages.

The innate spirit of cooperation and tolerance in children is nowhere more obvious than in a one-room school. A backward child never feels retarded. He is accepted for what he can do and fits into whatever class level he can handle.



of scientific farming and water conservation.

Foreign oil companies pay huge royalties to King Saud. The tall, bespectacled monarch lives in splendid palaces and owns fleets of Cadillacs. His bodyguards carry jeweled scimitars.

But Near Eastern troubles offset such luxuries. Saudi Arabia's oil must flow to the Western World via the Mediterranean. At present, it either passes through the Suez Canal or by pipelines, to eastern Mediterranean ports. With Egypt controlling the Suez Canal, Westerners regard that route as risky. And Soviet influence in Syria (GSB Oct. 14, 1957) threatens vital lengths of pipeline running through that country.

So oil men are trying to figure new ways to get oil to Western Europe. Lines have been proposed which would bypass Syria and cut through Iraq to Turkey.

American technical know-how and the protective backing of the United States are valuable to Saudi Arabia. But so is the good will of Arab neighbors, quick to quarrel among themselves, but often solidly united when faced with non-Arab interference.

Breathlessly, the world watches a tall king and his ancient people walk a tightrope.—J.A.

ABDUL GHAFUR SHEIKH

IN the lanes of the old bazaar at Jidda, main Red Sea port of Saudi Arabia, rug merchants and money changers haggle and wheedle as though the armored column and the atom bomb were still centuries in the future. But in this almost Biblical setting they often repeat a tale that helps explain the 20th-century importance of their strange desert land.

Listening, you may hear of the day a tiny band gathered in the desert near the oasis of Riyadh. Cloaked by late twilight, they stole over the city walls. The tall, powerfully built young man who led them spoke to

MAYNARD OWEN WILLIAMS

King Saud's Arabia

those who stayed behind. "If no message reaches you by tomorrow, haste away; you will know that we are dead."

But the young Saud prince succeeded, and took Riyadh. Now, fifty-five years later, the Western World as well as the tense Near East feels the repercussions. For Ibn Saud went on to build an empire that sprawled over most of the Arabian Peninsula, bringing law and unity, winning respect and admiration. Oil was found. As absolute monarch he built gorgeous palaces from its riches. Today's sizzling emotions threaten a vital international oil industry. And the Western World hopefully watches King Saud, the son of Arabia's desert prince.

His monarchy, almost one-fifth the size of the United States, stared emptily from the world map until about 20 years ago. Only a handful of Westerners had been there. For more than a thousand years its tracts of rocky hills, deserts of sand or pebble, and date palm oases knew little but nomads with their camels and goatskin tents and the quiet lives of oasis dwellers. Mecca, near the Red Sea, was the birthplace of Mohammed, 14 centuries ago. Islam's followers around the world, Moslems, number well over 400 million. They prostrate themselves (below) to face Mecca five times daily, and all hope to fulfill a basic requirement, a pilgrimage, once in each lifetime, to the sacred city.

The impact of Westerners exploiting oil brought incredible changes. Ancient walls around Jidda fell to provide material for a pier. Planes roared into the near-by airstrip. The Persian Gulf churned with barges bringing in drill rigs and prefabricated houses. The mighty Arabian American Oil Company built the world's first centrally air-conditioned city and taught Bedouins to drive trucks. Aramco stretched a 1,068-mile oil pipeline (Tapline, the Trans Arabian Pipeline) across Saudi Arabia, through Jordan and Syria to Mediterranean ports of Lebanon. American engineers brought more than oil savvy. Arabs began learning

Oil Hunters Bring Life to Arabia's Rub'al Khali (Empty Quarter)

ARABIAN AMERICAN OIL COMPANY

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